

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A light guide for use in a dental curing device, said light guide comprising an entrance area, a lens, at least one reflector, a light pipe and an exit area wherein the lens and at least one reflector are constructed of a single continuous homogeneous material and wherein the exit area is sized to be placed inside a patient's mouth such that light is projected onto a single tooth.
2. (Currently amended) The light guide of claim 1, wherein the light guide [is further comprised] consists of a single material selected from the group consisting of [injection molded] acrylic, plastic [or] and glass.
3. (Currently amended) A multi-piece light guide for use in a dental curing device, said light guide comprising an entrance area, at least one reflector, and lens all functionally attached to an image conduit by a metal sleeve wherein the lens and at least one reflector are constructed of a single continuous homogeneous material and wherein the image conduit comprises a proximal end and a distal end and wherein the distal end is sized to be placed inside a patient's mouth such that light is projected onto a single tooth.

4. (Currently amended) The multi-piece light guide of claim 3, wherein the entrance area, at least one reflector and lens are [molded] in a single glass part.

5. (Currently amended) [An] A dental light curing apparatus comprising a light source and a light guide for transmitting light from said light source, said light guide comprising an entrance area, a lens, at least one reflector, a light pipe and an exit area wherein the lens and at least one reflector are constructed of a single continuous homogeneous material and wherein the exit area is sized to be placed inside a patient's mouth such that light from the light source is projected onto a single tooth.

6. (Currently amended) The light-curing apparatus of claim 5, wherein the light source is selected from the group consisting of LED, tungsten, halogen, metal halide, [or] and xenon.

7. (Currently amended) The light curing apparatus of claim 5, wherein the light source is a multiple LED [emitter].

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (New) The light curing apparatus of claim 7, wherein the each LED is selected from the group consisting of dies and emitters.

13. (New) The light curing apparatus of claim 12, wherein the light source comprises a single domed lens cover.

14. (New) The light curing apparatus of claim 12, wherein the light source does not include a domed lens cover.

15. (New) The light curing apparatus of claim 5, wherein the light source is a single LED.

16. (New) The light curing apparatus of claim 15, wherein the single LED is selected from the group consisting of die and emitter.

17. (New) The light curing apparatus of claim 16, wherein the light source comprises a domed lens cover.

18. (New) The light curing apparatus of claim 16, wherein the light source does not include a domed lens cover.

19. (New) A light guide for use in a dental curing device, said light guide comprising:

a proximal end and a distal end, wherein said proximal end is designed to receive light from at least one light source and wherein said proximal end comprises:

a reflecting means; and

a refracting means;

wherein the reflecting means is concave to the light source and reflects light from the light source towards the distal end of the light guide, and wherein the refracting means is convex to the light source and refracts light from the light source towards the distal end of the light guide, and wherein the reflecting means and the refracting means are constructed of a single continuous homogeneous material, and wherein the light from the light source travels from the proximal end to the distal end without passing through any substantial air spaces.

20. (New) The light guide of claim 19, wherein the proximal end of the light guide is connected to a fused fiber optic image conduit.

21. (New) The light guide of claim 19, wherein the reflecting means and the refracting means are constructed of acrylic, plastic or glass.

22. (New) A dental light curing device, said device comprising:

at least one light source; and

a light guide having a proximal end and a distal end,

wherein said proximal end receives light directly from the at least one light source and wherein said proximal end comprises:

a reflecting means; and

a refracting means;

wherein the reflecting means is concave to the light source and reflects the light received from the light source towards the distal end of the light guide, and wherein the refracting means is convex to the light source and refracts the light received from the light source towards the distal end of the light guide, and wherein the reflecting means and the refracting means are constructed of a single continuous homogeneous material, and wherein the light from the light source travels from the proximal end to the distal end without passing through any substantial air spaces.

23. (New) The dental curing device of claim 22, wherein the reflecting means and the refracting means are constructed of acrylic, plastic or glass.

24. (New) The dental curing device of claim 22, wherein the at least one light source is selected from the group consisting of LED, tungsten, halogen, metal halide, and xenon.

25. (New) The light curing apparatus of claim 22, wherein the light source is a multiple LED.

26. (New) The light curing apparatus of claim 25, wherein the each LED is selected from the group consisting of dies and emitters.

27. (New) The light curing apparatus of claim 26, wherein the light source comprises a single domed lens cover.

28. (New) The light curing apparatus of claim 26, wherein the light source does not include a domed lens cover.

29. (New) The light curing apparatus of claim 22, wherein the light source is a single LED.

30. (New) The light curing apparatus of claim 29, wherein the single LED is selected from the group consisting of die and emitter.

31. (New) The light curing apparatus of claim 30, wherein the light source comprises a domed lens cover.

32. (New) The light curing apparatus of claim 31, wherein the light source does not include a domed lens cover.

33. (New) A dental light curing device, said device comprising:

at least one light source; and

a light guide having a proximal end and a distal end,

wherein light from the at least one light source enters the light guide through the proximal end and exits the light guide through the distal end, and wherein the intensity of the light, measured at the center of the cross sectional area of the light beam projected from the distal end of the light guide, increases with distance away from the face of the distal end of the light guide.

34. (New) The dental light curing device of claim 33 wherein the intensity at a distance approximately 2 mm from the distal end of the light guide is greater than the intensity at the face of the distal end of the light guide.

35. (New) A method for curing a dental composite, the method comprising:

providing light from at least one light source into a light guide having a proximal end and a distal end and onto the dental composite, wherein light from the at least one light source enters the light guide through the proximal end and exits the light guide through the distal end, and wherein the intensity of the light, measured at the center of the cross sectional area of the light beam projected from the distal end of the light guide, increases as the light travels from the distal end of the light guide to the dental composite.

36. (New) A dental light curing device, said device comprising:

at least one light source; and

a light guide having a proximal end and a distal end,

wherein light from the at least one light source enters the light guide through the proximal end and exits the light guide through the distal end, and wherein the light guide characteristics minimize the loss of the intensity of the light, measured at the center of the cross sectional area of the light beam, with distance away from the face of the distal end of the light guide.

37. (New) A method for curing a dental composite, the method comprising:

providing light from at least one light source into a light guide having a proximal end and a distal end and onto the dental composite, wherein light from the at least one light source enters the light guide through the proximal end and exits the light guide through the distal end, and wherein the loss of intensity of

the light, measured at the center of the cross sectional area of the light beam, is
minimized with distance away from the face of the distal end of the light guide.